

the applicant's production requirements, operating period, and recovery efficiency in order to justify the area applied for.

(b) The applicant shall select the size and location of the area of the recovery plan, which area shall be approved unless the Administrator finds that, among other considerations (see § 971.301(a)), the area is not a logical mining unit. In the case of a commercial recovery permit, a logical mining unit is an area of the deep seabed:

(1) In which hard mineral resources can be recovered in sufficient quantities to satisfy the permittee's estimated production requirements over the initial 20-year term of the permit in an efficient, economical, and orderly manner with due regard for conservation and protection of the environment, taking into consideration the resource data, other relevant physical and environmental characteristics, and the state of the technology of the applicant set out in the recovery plan;

(2) Which is not larger than necessary to satisfy the permittee's estimated production requirements over the initial 20-year term of the permit; and

(3) In relation to which the permittee's estimated production requirements are not found by the Administrator to be unreasonable.

(c) Approval by the Administrator of a proposed logical mining unit will be based on a case-by-case review of each application. The area need not consist of contiguous segments, as long as each segment would be efficiently mineable and the total proposed area constitutes a logical mining unit.

(d) In describing the area, the applicant must present the geodetic coordinates of the points defining the boundaries referred to the World Geodetic System (WGS) Datum. A boundary between points must be a geodesic. If grid coordinates are desired, the Universal Transverse Mercator Grid System must be used.

#### **§ 971.502 Conservation of resources.**

(a) If the Administrator establishes terms, conditions and restrictions relating to conservation of resources, he will employ a balancing process in the consideration of the state of the tech-

nology being developed, the processing system utilized and the value and potential use of any waste, the environmental effects of the recovery activities, economic and resource data, and the national need for hard mineral resources.

(b) The application must set forth how the applicant's proposed method of collecting nodules will conserve resources by providing for the future opportunity for commercial recovery of the unrecovered balance of the resources in the proposed permit area. Although preliminary and subject to change, the discussion must include a plan for the chronology of areas to be mined. This is needed in order for the Administrator to determine if selective mining, expected to be carried out in the early years to improve cash flow, is part of a long range recovery plan.

(c) If the applicant proposes a refining process that does not include the use of manganese in a productive manner, it may not render the manganese unavailable to future users by dispersing the tailings over a vast area unless such a scheme is necessary for the financial practicability of the commercial recovery activities of the applicant. A permittee must advise the Administrator in the annual report of the location, composition and quantity of manganese in tailings which remain after processing. Should national needs for manganese develop during the duration of a permit, e.g., in case of national emergency, the Administrator may cancel the exception granted involving dispersion of tailings. Applicants seeking an exception would be required to demonstrate how and in what time frame their commercial recovery processing activities could be modified to respond to new national needs.

#### **§ 971.503 Diligent commercial recovery.**

(a) Each permittee must pursue diligently the activities described in its approved commercial recovery plan. This requirement applies to the full scope of the plan, including environmental safeguards and monitoring systems. Permit TCRs will require periodic reasonable expenditures for commercial recovery by the permittee, taking into account the size of the area

of the deep seabed to which the recovery plan applies and the amount of funds estimated by the Administrator to be required to initiate commercial recovery of hard mineral resources within the time limit established by the Administrator. However, required expenditures will not be established at a level which would discourage commercial recovery or operational efficiency.

(b) To meet the diligence requirement, the applicant must propose to the Administrator an estimated schedule of activities and expenditures pursuant to § 971.203(b)(2). The schedule must show, and the Administrator must be able to make a reasonable determination, that the applicant can reasonably develop the resources in the permit area within the term of the permit. There must be a reasonable relationship between the size of the recovery area and the financial and technological resources reflected in the application. The permittee must initiate the recovery of nodules in commercial quantities within ten years of the issuance of the permit unless this deadline is extended by the Administrator for good cause.

(c) Once commercial recovery is achieved, the permittee must, within reasonable limits and taking into consideration all relevant factors, maintain commercial recovery throughout the period of the permit. However, the Administrator will, for good cause shown, authorize temporary suspension of commercial recovery activities. The duration of any suspension will not exceed one year, unless the Administrator determines that conditions justify an extension of the suspension.

(d) Ultimately, the diligence requirement will involve a retrospective determination by the Administrator, based on the permittee's reasonable conformance to the approved recovery plan. This determination, however, will take into account the need for some degree of flexibility in a recovery plan. It also will include consideration of the needs and stage of development of the permittee based on the approved recovery plan; legitimate periods of time when there is no or very low expenditure; and allowance for a certain degree of flexibility for changes encour-

tered by the permittee in market conditions or other factors.

(e) The permittee must submit a report annually reflecting its conformance to the schedule of activities and expenditures contained in the permit and its associated recovery plan. In case of any changes requiring a revision to an approved permit and recovery plan, the permittee must advise the Administrator in accordance with § 971.413.

## Subpart F—Environmental Effects

### § 971.600 General.

The Act contains several provisions which relate to environmental protection. For example, section 105(a)(4) requires that, before the Administrator may issue a commercial recovery permit, he must find that the commercial recovery proposed in the application cannot reasonably be expected to result in a significant adverse environmental effect. In addition, each permit issued must contain TCRs which prescribe actions the permittee must take in the conduct of commercial recovery activities to assure protection of the environment (section 109(b)). The Act also provides for modification by the Administrator of any TCR if relevant data and information indicate that modification is required to protect the quality of the environment (section 105(c)(1)(B)). The Administrator also may order an immediate suspension or modification of activities (section 106(c)), or require use of best available technologies (section 109(b)), to prevent a significant adverse environmental effect. Furthermore, each permit issued under the Act must require the permittee to monitor the environmental effects of commercial recovery activities in accordance with guidelines issued by the Administrator, and to submit information the Administrator finds necessary and appropriate to assess environmental effects and to develop and evaluate possible methods of mitigating adverse effects (section 114).

### § 971.601 Environmental requirements.

Before issuing a permit for the commercial recovery of deep seabed hard mineral resources, the Administrator must find that: